

Appl. No.: 10/676,818
Art Unit: 3711; Docket No.: C03-27
Reply to Office Action of May 4, 2004

LISTING OF CLAIMS

1. (Currently amended) A method of aligning a putter, comprising the steps of:
providing a putter having a head, a heel, a toe, a top surface, and a planar striking face comprising a removable reflecting surface for receiving and reflecting incident light, the top surface comprising at least one first reference line oriented substantially parallel to the striking face and a plurality of second reference lines oriented substantially perpendicular to the striking face;
providing a light source separate from the putter head;
directing light from the light source towards the reflecting surface such that the reflective surface is illuminated with and reflects a portion of the light towards a reference device; and
detecting the reflected light with a reference device, wherein the reference device is a photosensitive array and the reflected light incident upon the photosensitive array generates a signal capable of being transferred to an output device visible to a golfer;
determining the location of the reflected beam on the reference device relative to a central point prior to the golfer making a putting stroke;
correcting the orientation of the putter so that the reflected beam is directed at the center of the reference device; and
using the reference lines to provide a visual reference point to the golfer indicative of putter orientation.
2. (Original) The method of claim 1, wherein the light source is a laser.
3. (Original) The method of claim 1, wherein the reflecting surface is a mirrored surface, highly-polished fused silica, highly-polished glass, or a beam splitter.
4. (Currently amended) The method of claim 1, wherein the ~~reference device comprises an opaque surface, graph paper, a ruler,~~ photosensitive array comprises a photomultiplier tube, an avalanche photodiode, or a charge-coupled device.
5. (Original) The method of claim 1, wherein the light is collimated, focused, or both.

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6. (Original) The method of claim 1, wherein the planar striking face has a loft of between about 2 degrees and about 7 degrees.
7. (Original) The method of claim 6, wherein the loft is about 4 degrees.
8. (Original) The method of claim 1, wherein a spacer or a shim is disposed between the planar striking face and the reflecting surface.
9. (Cancelled)
10. (Currently amended) The method of claim 1, wherein the ~~reference device~~ reflecting surface is a beam splitter oriented such that a first fraction of the light is reflected towards the reference device and a second fraction of the light is redirected perpendicular the incident light.
11. (Original) The method of claim 10, wherein the redirected light strikes the ground below the striking face such that the golfer may align a putting stroke path.
12. (Cancelled)
13. (Currently amended) The method of claim ~~[[12]]~~ 1, wherein the output device comprises a personal computer, a monitor, an oscilloscope, or a personal data assistant.
14. (Original) The method of claim 1, further comprising the step of:
providing a second reference device located below the putter head.
15. (Currently amended) A method of aligning a putter, comprising the steps of:
providing a putter having a head, a heel, a toe, a top surface, and a planar striking face having a loft of about 4 degrees and comprising a reflecting surface for receiving and reflecting incident light, the reflecting surface being oriented vertically by a shim or a spacer, and the top surface comprising at least one first reference line oriented substantially parallel to the striking face and a plurality of second reference lines oriented substantially perpendicular to the striking face;

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providing a light source separate from the putter head;
directing light from the light source towards the reflecting surface such that the reflective surface is illuminated with and reflects a portion of the light;
detecting the reflected light with a reference device; and
comparing the reflected light to a central location on the reference device so that a golfer may determine the orientation of the putter head; and
using the reference lines to provide a visual reference point to the golfer indicative of putter orientation.

16-20. (Cancelled)